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ST. JOHN & BULL SEED COMPANY

Standard and Improved Varieties
of All Farm Crops and
Garden Seeds

THIRD ANNUAL CIRCULAR 1922

D. N. Shoemaker
MAR 1 3 1922

Office and Central Warehouse
at
WORTHINGTON - - - MINNESOTA

AIMS AND ORGANIZATION

The third annual circular of St. John & Bull Seed Co., is herewith presented to those interested in pure and improved seeds believing that it is our duty as well as our pleasure to let the public know that we still are actively and intensely interested in breeding field seed and supplying the commonwealth with a high class of well bred seed. We believe that the trade has a right to known what we have and are trying to do. Even tho it is doubly expensive, in these strenous economic times to issue this booklet. We feel assured that our effort to improve the varieties and seeds of our territory and our desire to become more and more a factor for reliable service is appreciated. The breeding plots, which we annually maintain, were not a disappointment this year even in view of the very dry and somewhat unfavorable season.

We maintain breeding (improvement) plots of such varieties of crops as naturally deteriorate rapidly under free planting farm methods. In this way, we preserve the qualities worth while. We constantly improve the yield and intrinsic worth of the varieties, which become badly intermixed in from one to three years in the average grower's hands. We invite inspection of our fields and warehouses at any and all times. We also offer our services as a cousel in respect to farm practices, best adapted varieties, and methods of production. We save only the best of such seed stocks as we secure off our farms.

Do We Grow Our Own Seeds.

In Section 2, Alba Township, Jackson county, Minnesota we placed in 1917-18, $6500 in tiling our 400 acre seed farm and otherwise have improved it for high grade seed production.

We use a good portion of our 75 acre farm, located within the corporate limits of the city of Worthington, as well as many well isolated small tracts in and about the city for increase fields and breeding plots.

In this manner we are able to carry on our breeding projects and supply the pure high grade seed for the growing of the excellent seed stock we offer our customers.

Garden Seeds

We offer garden seeds this year from bulk lots secured direct from the growers in Denmark, in the United States and of our own growing. We first offered garden seeds as a result of the constant inquiry of our patrons. The excellent quality of the seeds we were able to secure and the increasing demands leads us to believe we are rendering a service also in this line. Your attention is called to our list of staple garden seeds.

We Do Not Control Climatic Conditions

Seeds are mere buds (miniature plants) stored in a cradle of specially prepared food supply and covered with a quilt of special make, to hold plant and food together and partly withstand the rough conditions. All our seeds are tested and thoroughly prepared. We therefore guarantee germination and quality. St. John & Bull Seed Company do not guarantee the seed as to producing capacity, description or otherwise, as there are many adverse conditions to which seeds may be subjected, that are entirely beyond our

control. Should the seed not be as indicated on the tag, we will gladly exchange it, if notified within ten days after delivery.

Important Changes

Before giving a list of the varieties we have to offer we call your attention to a few matters of importance to us and we believe also to you. In the first place you will notice we have changed the name of our firm, Humiston & St. John Company, to St. John & Bull Seed Company. Second, we have added substantially to our personnel, and third, we have perfected a plan whereby we will be able to offer an increasingly larger amount of pedigreed and improved seeds annually.

Mr. C. P. Bull, former professor in Agronomy at the Minnesota Agricultural College, and prominent in the plant breeding work that has advertised Minnesota so well, severed his connection with the University and entered actively in the practical work of improving varieties for farm conditions and breed them on a large scale for this purpose.

Mr. Bull is uniquely well fitted for the work; having been born and raised on a farm and worked his way through the University Agricultural College after he had reached the voting age. Nearly all the improved varieties distributed from University Farm have passed inspection either entirely or in part because of the requirements exacted by him: Minnesota No. 23, 13, 287, and 455 corn; Minnesota No. 184 barley; Minnesota No. 261 281, 295 and 237 oats; valuable varieties of hardy winter wheats; Minnesota No. 25 flax; Minnesota No. 2 rye, and other valuable varieties prominent in this state. Many of these also have become recognized in Eastern and Western states. It is now our purpose to go more actively into the production of these and other varieties adapted to Minnesota, eastern South Dakota and northwest Iowa conditions.

Mr. Bull was instrumental in the organization of the Minnesota Crop Improvement Association, of which he was secretary from 1905 to 1920. In this and the college connection, the varieties of farm crops have been materially improved and distributed in the Northwest. The growers have become interested in the production of standard varieties of intrinsic qualities and adapted to the various localities. Interesting farmers in the production of these varieties, printing the annual seed list, holding the annual seed show and disseminating the improved and pedigreed seeds developed at the Experiment Station, is but a part of the products of the association during the term of his guidance. At present the outstanding feature of the association work started by Mr. Bull is the inspection, the certification and the registration of pure and pedigreed seeds offered by the growers of Minnesota.

Though Mr. Bull is at present connected with the State Department of Agriculture, St. Paul, Minnesota, he is giving detailed attention to the selection and breeding work we are undertaking.

The St. John Grain Company has been identified with the grain trade of southwestern Minnesota and adjacent territory for the past 32 years. For the past 25 years the president of this company, **Mr. B. P. St. John,** has given much time and study to the improvement of southwest Minnesota field crops by selection of the better kinds of foundation stocks and by breeding these in collaboration with the Agricultural College of Minnesota. It is only fair to state here that the technical interest taken by Mr. St. John in these matters was largely due to his contact with C. P. Bull, who during these years was professor in Agronomy and Farm Management at the University of Minnesota. Mr. St. John worked closely and intelligently with this department, but more particularly with Professor Bull.

Mr. S. E. St. John has been an active and worthy participant in all the activities of the St. John Grain Company for a period of 20 years. In fact, he has been with the company since he was 15 years of age, having been its secretary for the last 10 years. His experience has been varied and broad.

His acquaintance and standing in Southwestern Minnesota is an element of strength to the organization and confidence to the trade.

Mr. F. L. Humiston, a well-known crop enthusiast of Worthington, Minn., joined forces with the St. John grain organization in 1914, under the corporate firm of Humiston & St. John Company. Mr. Humiston's well-known business judgment and sterling integrity has added much strength to the business during the several active years of his personal service. When Mr. Humiston decided that he would retire from active personal service to visit California, an invitation was extended to Professor C. P. Bull to come and join in the field seed business of active producing, acquiring and distributing seeds on a commercial basis. He accepted the invitation and is actively engaged in the work, in fact he has cast his lot with the firm and become part of us.

In view of the uniting of these two interests it was decided to change the name of the firm and to incorporate in the name the identity of both, hence the St. John & Bull Seed Company. **We expect to give service that will be a credit to ourselves and the public.**

NO APOLOGIES

In offering our improved seeds to the public we have no apology to make with reference to quality, viabilty or adaptability. The varieties are all standard and have been grown in Minnesota sufficiently long to have proved their value and to have determined their place. The small grains are all recleaned and graded; the clovers, alfalfa and other such seeds are carefully cleaned and graded. The corn is thoroughly cured, tipped, butted, shelled and graded before offering it to the farmers. All seeds are of high percentage purity and tested for approved germination. Each bag or container is marked with the test, variety name, locality grown in and percent of pure seed.

Note—All price quotations are made F. O. B. Worthington, Minn. Bags extra at cost, unless otherwise stated.

FIELD SEEDS

Alfalfa

The queen of forage crops. Grows in any county in the Northwest. Very successful in S. W. Minnesota when properly handled. We will be glad to advise as to methods of handling the soil, best varieties and planting the seed. 12 to 15 pounds per acre are used in seeding.

Common—South Dakota grown. Reccommended as the best common stock in South Dakota.

Grimm—The hardiest variety in America. Characterized by the character of its bloom and its branched root system. Distinctly superior to other sorts. Our stock is reliable and from fields of long standing in South Dakota and western states. The original seed establishing these fields was from Carver county, Minnesota, the birthplace of Grimm Alfalfa. Other varieties supplied on request.

Beans and Soy Beans

Navy—The Common Navy beans are grown everywhere. We carry very little in stock. The type of common Navy bean varies greatly, both as to size and shape of bean. These are early and easily grown, but not as large yielders as the Mich. Robust. We carry very few beans in stock. Prices quoted on request.

Navy—Michigan Robust—Bred by the Michigan station. Smaller seed than common. Yields best of all sorts tested by the Minnesota Experiment Station. Excellent for eating. Only a small stock. Write for prices.

Snap or String Beans—(See Garden seeds).

Soy Beans—This new crop has proved its value in this section as a forage or a seed crop. It may be grown alone or with corn for feed, pasturing off, or for silage. Prof. Geo. Briggs, Agronomist and Soy bean specialist of Wisconsin Experiment Station stated recently that a $4 per bushel this year farmers can well offord to grow soy beans for hay, hogging off or seed. Write for prices.

Wisconsin Black—One of the best early sorts. Will mature seed. Fits in well with corn for soiling or silage.

Medium Maturing Yellow—Will mature for forage, but not always safe for seed production. Excellent for silage.

Chestnut (Minn. No. 110)—A brown seeded bean very leafy and heavy yielder of both forage and seed. It is the first and at present the best variety availabe from the breeding plots of the Minnesota Experiment station.

Bromus Inermis

(See Grasses)

Barley

(Write for Prices)

Minn. No. 105—A Manshury 6 row early; selected by Minnesota Experiment Station from the best variety grown in Manitoba. Much superior to the common sorts. Only a small quantity of seed available.

Minn. No. 184—A pedigreed strain of Minn. No. 105. Outstanding as a superior yielder. Even after several years this variety is superior in yielding power. It is leafy and has medium length straw and stools (tillers) well. The seed heads are well filled with large uniform seeds. The best tested at the Experiment Station. Only a limited amount of seed available. A superior yielder in Minnesota, North and South Dakota and Iowa.

Common Manshury—The best of the Common Varieties.

Buckwheat

There are two kinds of buckwheat. Silver Hull and Japanese. The Silver Hull is generally preferred, but there is little or no difference in yield between the two.

Beets

(See Garden Seeds)

Field Corn

Our seed corn is all home grown and largely from our own farms. The seed we sell is saved free from damage by frost. It is fire dried. Before shelling our seed grade of corn, the ears are carefully selected, butted and tipped. The seed is then cleaned and graded. Our breeding plots and fields in 1921 were excellent in quality and yield. Much of it is certified or registered by the Minnesota Crop Improvement Association. We invite inspection of our seed at any time. Our prices are subject to change without notice, on account of market conditions.

Our prices range from $1.00 to $4.00. Write for quotations on varieties desired.

Minnesota 13—The most popular variety in the Northwest. Yellow wrinkle dent. Ears 8-9 inches long, Medium cob. 16 rows of kernels. No. 13 has won more acre yield, boy club contests, than any other variety. The best acre yielded 114 bushels in 1920. Matures medium early. Always a safe corn to grow. Excellent for silage. Suited to any well drained friable soil. Our seed stock comes direct from Experiment Station seed of 1920 and from our breeding plot progeny. We have 500 bushels of registered seed. Certificate No. 94.

Minnesota No. 23—A very popular variety for early hogging off or later pasturing. This variety was bred by Prof. C. P. Bull at University farm for early maturity and corresponding high yielding power. It has matured in all northern Minnesota counties. White capped yellow with "saucer" dent, ears from 5 to 8 inches long. Red cob, medium size, 12 to 14 rows. Yields heavily for such early maturity, 75 bushels not impossible. Under favorable circumstances 4 stalks for hill desirable. Earliest maturing dent known. Suited to any medium loam soil. Our seed is obtained from Northern Minnesota, thus, it retains its early maturing character. It is not a silage

Field Corn (Continued)

corn. When hogged off, there are few stocks left to bother in plowing. For a ripe corn to prepare hogs for early fall market, there is none better. Our seed stock is certified.

Minnesota 455—A new variety berd by Prof. C. P. Bull at University Farm, St. Paul. A very promising variety for southern Minnesota, northern Iowa and similar sections. Ears 8-9 inches long, large around, exceedingly small cob with 16-18 rows. Kernels very long, with wrinkle to pinch dent. Large amount of hard starch. High oil and protein content, excellent feeding variety. Matures safely on well-drained, strong soil. A heavy yielder. Our breeding plot in 1920 yielded around 85 bushels per acre. It is no corn for late planting or poor soil. Our seed is direct from our breeding plot and has 10 years of selection. 50 bushels are registered by the Minnesota Crop Improvement Association. Certificate No. 95.

Reeves—A popular variety in southwest Minnesota. Yellow with pinch dent. Ears 8½ to 10 inches long. Small cob with 14 to 16 rows of deep kernels. Our breeding plot yielded around 85 bushels per acre. It matures about the same as Minnesota 455. Earlier than Murdock and Silver King. Not a poor soil corn, but adapted to all southwestern Minnesota and similar conditions. Does best on rich loam soils. A heavy yielder. Our seed is from our breeding plot stock of 18 years selection, and propagation. 100 bushels of certified seed. Certificate No. 100.

Rustler—The white sister of Minn. No. 13. A good rugged variety. White with wrinkled dent, and otherwise similar to Minn. No. 13. It is often said that white corn does better than yellow corn on light or poor soil. If this be true, Rustler is that white corn. Rustler responds exceedingly well to good soil and good cultivation. Our seed is raised in Nobles County, where it has been grown for many years. 100 bushels certified. Certificate No. 96.

Silver King—Popular as a deep kerneled and show corn. White with occasionally a slight tint of old ivory. Pinch and pinch cap dent. Ears 8-9 inches long. Medium-sized cob with 16-18 rows of kernels. A good yielder. The latest white corn extensively grown in this Northwest. Suited only to southern Minnesota, northern Iowa and similar sections. Demands good rich soil and early planting. Our seed is Nobles county grown and is an early selected strain of the variety.

Northwestern Dent—A well known, reliable variety. Popular everywhere. Red with yellow cap to kernels. Ears 8 to 10 inches long, cob white and medium size. Always a safe crop in Minnesota. Matures before Rustler and Minnesota No. 13. Yields well and is next to No. 23 for early hoggin off. Very leafy, excellent for fodder or silage. Adapted to any soils, and permits of late planting. Our seed is local grown and is selected carefully for type. Certified seed. Certificate No. 99.

Armstrong— A corn of reliable character. Color cream to light yellow, with smooth dent. It shells yellow. Ears 9 to 10 inches long, with 10-14 rows of kernels. Kernels medium in length. Cobs light yellow, medium size. Never fails to mature a crop of sound corn. Just the corn for the man who wants a sure crop, or who can't get the land ready until the last of May. Suited to any soil. Our seed is local grown and selected for size of ear and early maturity.

Sweet Corn and Pop Corn

(See Garden Seeds)

Clover

No farm should have less than one-fifth of its cultivated area seeded down to clover or a mixture of which clover forms one third or more of the herbage. Clover is a legume. All legumes add nitrogren to a soil and add a large quantity of humus when plowed under. No land, 10 years or more under plow, can yield as much net profit to the farmer without clover, as with it. Clover pays a profit in the succeeding crops raised even though no hay or seed or pasture is exacted from the field. Sow clover. The seed is much cheaper than in 1921 and 1920.

Medium Red—The all-round clover for hay, for seed for pasture or for a green manure crop. Common all over the world. Our seed was obtained in central Minnesota, is clean and excellent quality. Use 10-12 pounds per acre when sown alone.

Mammoth Clover—Similar to Medium Red; a good strong growing variety. The best clover for green manure.

The "annual" clover, especially useful on very light or sandy soils. Does not furnish two cuttings as does the Medium Red.

Alsyke—The best clover for moist soils. Should form a part of every seeding on lands of heavy or clayey nature or where water is likely to move off slowly. In southwestern Minnesota, it is often best to sow half medium and half alsyke in all seedings. Use 5 to 6 pounds per acre when sown alone.

White—Seldom used for sowing on fields. See "Lawns" for further information.

Flax

The production of flax in the United States is constantly decreasing. According to United States Government figures, Minnesota in 1920 produced only 320,000 bushels. Minnesota should produce a million bushels. Large importations are annually made from Argentina and India. This means that flax will be more and more a profitable crop if given proper care. Well selected seed of the best quality is important. Some varieties are partially resistant to flax wilt. These are best on old land. "Wilt" flax will do better on sod land. It is also very successfully grown on "old" land. A good clean piece of corn land is a safe place to put flax. Write for prices.

South Dakota Wilt Resistant—Bred by the South Dakota Experiment Station for wilt resisting and high yielding qualities. Our seed comes in direct lineage from the South Dakota pedigreed seed. The wilt resisting varieties are the only reliable ones to use on old ground.

Common Flax—Good quality, clean, high test seed.

Grasses

Bromus-Inermis — (Awnless Brome Grass or Brome Grass) Very valuable grass for hay or pasturage. A perennial and grows like Kentucky Blue Grass, only larger. Rather slow to start, but once established it grows from early spring to late fall. Yields a fifth more

Grasses—(Continued)

than timothy and makes a better quality of hay. Stands drought or excessive moisture, vastly better better than timothy. The seed is light, 14 pounds per bushel being standard weight. Owing to its scarcity it is not cheap, but its lasting many years in the field makes it cheapest in the end. Not recommended for seedings to remain less than 3 years. Our seed is clean, free from foul weeds, and of high quality.

Kentucky Blue Grass—The best foundation grass for any lawn or permanent pasture. It comes naturally into grass lands in Minnesota but without sowing the seed it is spotted and very slow to form sufficient stand to be profitable. It is nearly always best to sow Ky. Blue Grass with a mixture of clovers and other grasses. It should never be used for meadows as it is does not make a hay crop. See also "Lawns."

Red Top—An excellent grass to use in mixtures for either hay or pasture and in lawns. The seed is sold both in the chaff and hulled (solid seed). The solid seed is best to use. Red Top is eminently fitted to low, moist and rich heavy soils. 8-10 pounds are sown per acre when used alone. Write for prices of our "solid" seed.

Sudan Grass—A new and excellent forage grass—write for special prices.

Timothy—The most widely known forage grass. Its relatively cheap seed makes it popular. Its universal use for hay and pasture is well understood. 12 pounds are used when sown alone. Our seed is home grown and thoroughly cleaned. It meets the requirements of the state law more than half way. Ask for prices.

Timothy and Alsyke Mixture—Timothy and alsyke clover mixed is frequently grown and threshed for seed. Good bargains may be had in buying these ready mixtures. The prices of the different lots will vary since the percentage of timothy is not always the same. Ask for our prices.

Meadow and Pasture Mixtures—We do not mix the seeds on the "ready-made" plan. We can serve our customers better by keeping high quality pure seed of each sort suited to or needed in the northwest. We will be very glad to advise with anyone who wishes to seed with a mixture for a certain purpose and to supply the best obtainable for that purpose. A man does not want some varieties for hay that are necessary for pasture; again, some varieties are better suited for certain soils than others. Some varieties stand excess moisture or drought better than others. These things we can advise about and will gladly do so if asked.

Millets

Millets are very important as catch crops for hay and pasture. When intended for hay, best quality is secured if the crop is cut just as the plants are coming into head (heading out). If left until fully headed out the seed becomes too well developed and makes too heavy a feed for most live stock. Besides the feeding value of the hay is materially lessened. Millet seed weights 48 pounds per bushel. From 30 to 36 pounds are sown per acre.

American Golden—Grown extensively in southwest Minnesota for hay and annual pasturage. Grows tall very leafy and when properly cared for makes an excellent quality of hay.

Kursk-Minn. No. 83— A pedigreed strain of the Kursk Millet bred for leafiness and yield. Selected from one of the best millets bred at the South Dakota Station. Our seed is direct from the Minnesota Station stock and, therefore, comes with the full value of the carefully selected characters bred for.

Early Fortune— (Hog Millet) An

Millets—(Continued)

early maturing "seed" variety desired especially for hogging off; heads in about 6 weeks. Makes excellent hay when cut early. The seeds are large and a beautiful red-brown color. Not less than 3 pecks are sown per acre.

Broom Corn Millet—For hay or seed. Vigorous in growth, tall and leafy. Yields heavily, sometimes as much as 60 bushels. Similar to Early-Fortune, but larger and bears yellow seeds. When sown early it yields more seed than other varieties.

Common Millet—An all round good hay and pature variety. May be sown early or late. Matures early. Very good for a catch crop.

Mangels

(See Garden Seeds)

Oats

Our oats are the varieties best adapted to the region of southwestern Minnesota, southeast South Dakota, and northern Iowa, After nearly a dozen years of study and trial of the early and medium early varieties, we find that medium maturing varieties like Swedish Select, Victory, Minn. No. 281, etc., are not as well adapted to stand conditions of the region mentioned as are the Russian Green, the Iowa No. 103, Iowa 105, Minn. No. 512 and Minn. No. 261—the early class of oats. Occasionally when conditions are very favorable the medium varietites will out yield the early varieties in the above mentioned region, but not often. We therefore recommend for the regions above mentioned, the early class and varieties mentioned. Our prices are based on the markets and are freely quoted on request.

Russian Green—or Green Russian—The most popular and widely used variety grown within a large redius of Worthington. It produces abundance of straw and yields heavily. The kernel is medium in sizes, white to yellow in color, long and plump.

The hull is very thin. The crop often has a weight per bushel of 36 pounds as it comes from the machine. The growers of Russian Green oats have never been disappointed. In the past five years we have shipped Russian Green oats into North Dakota and in several sections of Minnesota. Very favorable reports have been received from these sections. We recommend these for universal use. Best results are obtained when 2½ to 3 bushels of seed are sown per acre.

Iowa No. 103—A pedigreed selection of an early Kherson. The straw is rather short and fine. The hulls are white. This strain is a good yielder and matures several days earlier than the Russian Green. From 3 to 4 bushels of seed should be sown per acre for best returns.

Iowa No. 105—A pedigreed selection of an early Kherson. The yellow sister Iowa No. 103 to which it is very similar. The hulls of these varieties are very thin. The seed is long and large when compared with the other seeds. Sow 3 or 4 bushels per acre.

Sorghum—"Cane"

Sorghum is a plant not fully appreciated in the Northwest. It is erroneously called "Cane" though there is no relation between it and the southern sugar cane. There are several sorts of sorghum, but the important one for the Northwest is the Early Amber—more particularly the commonly recognized Minnesota Early Amber. Two or three pecks per acre when wanted for forage, is the quantity sown.

Early Amber—A widely known variety and prized for its early maturity and the excellent quality of syrup extracted from its juice. It is also a very popular sort for fodder. Owing to the usual scarcity of seed considerable so-called Southern "Cane" (Sorghum) is shipped in. We are fortunate in being able to secure a large supply of Minnesota grown seed that we can offer our trade as A-No. 1. It may be grown for either forage or syrup purposes. When intended for syrup it may be sown in drills or in check-row. In drills the plants should be about six inches apart. In check-row each hill should have from five to six plants.

Southern Sorghum—Very similar to Minn. Early Amber, but later maturing and thereby more watery at the time of harvest for forage, than Minn. Amber. The yield of foliage is slightly more than Minn. Amber. Excellent for pasturage or to mix with corn for silage. When well field cured it makes very palatable fodder. It is seldom used for syrup making.

Wheat

Wheat is not generally considered a safe crop in southwestern Minnesota. Wheat will not produce a profitable crop if it is not sown early on well prepared and well drained land. We advise no one to try to grow wheat unless it is possible to obtain the above conditions. Fall plowing is always the best. Winter wheat is a possibility for southwestern Minnesota and adjoining territory. The newly developed strains of winter wheat bred at the Minnesota Experiment Station are giving good satisfaction. The Crimean and the Minnesota No. 1507 have done well on our breeding farm.

Marquis—The most popular variety of spring wheat. Bred about 25 years ago by the Canadian Experment Station. Our seed is thoroughly cleaned and graded. Mostly Le Sueur county grown.

Minnesota No. 1507 Winter Wheat—A pedigreed selection from the University Farm, Saint Paul, Minnesota. It is a hardy hard winter variety, medium tall, stiff, straw, and a strong yielder. Our seed is grown on our own farms. Sow 1½ bushels per acre early in September for best results.

Winter Wheat—Turkey—The variety that has succeeded best throughout the winter wheat regions of the middle west. Bearded, stiff straw, and heavy yielder. Some seasons it is difficult to tell the difference between this and the Blue Stem. Our supply of this variety is secured from Le Sueur County, Minn.

GARDEN SEEDS

We are endeavoring to supply the constant and increasing demand for reliable garden seeds and have therefore secured direct from the growers of staple garden seeds, a bulk supply of the best the season affords. We recommend the seeds hereinafter listed as true to name, reliable and viable. They are tested and the varieties selected are those recommended to use by the majority of our customers, as being best adapted to southwestern Minnesota conditions. We have grown these varieties and found them to suit our needs admirably.

There are a "thousand and one" named varieties of garden vegetables. We do not attempt to carry all as it is impractical. We have selected a few standard and excellent sorts. Any varieties not mentioned in our catalog we will be pleased to procure for those who desire us to do so.

We supply the seed in family-size packages put up from our bulk stock or in bulk lots as the trade may desire. More seed at cheaper rates is offered in this way than in the usual packet form.

Beets—Mangel

Mangels or Stock Beets—Excellent for milch cows, sheep, pigs, horses and especially for poultry as an occasional food in the daily ration. For the animals the beets should be crushed or cut fine. For poultry, hang it up 15 to 20 inches from the floor. Plant in rows 24 to 30 inches apart. Thin to one plant every 10 inches. Use 1 oz. to 100 feet drill row or 18 to 20 pounds per acre. (Yields range from 8 to 40 tons per acre).

Mammoth Long Red—Deep red color. 15 to 24 inches long. Five to 10 inches in diameter. Grows about half in and half out of the ground.

Yellow Globe—Light yellow color—round. 4 to 8 inches in diameter. Grows entirely on top of the ground.

Golden Tankard—Bright yellow base to greenish yellow top. 4 to 8 inches in diameter and 10 to 12 inches long. Grows about about a third in the ground.

Beets—Table

For commercial use plant in drills 20 to 24 inches apart and thin to each 4 inches in the row. For the home garden plant in drills 15 to 20 inches apart and thin to each 3 inches in the row. Table beets are best if only two to three inches in diameter. Many people make a mistake by growing table beets too large.

Egyptian Blood Beet—Dark red color. Will grow 6 inches in diameter, if allowed space in the row. Grows nearly all above the ground. An excellent variety for table use. Grown extensively by commercial gardeners for the city trade.

Carrots—Table

Every one should eat carrots. They contain what the body needs. Cooking experts say that carrots are among the best vegetables grown.

Nantes—One of the best, richest, tenderest and nicest all round varieties. Orange color throughout, cylindrical and half long.

Chantenay—An excellent table variety. Rich orange yellow color. Half long; slightly conical. Medium size tops. Sow one oz. to a 100 foot drill or 4 pounds per acre. For table use thin to one plant each 2 inches in the drill.

Cabbage

Cabbages are easy to grow. A small packet furnishes abundance of plants. Thirty to fifty days before the plants are to be set out, in the ground, sow the seed in a box in the green house or in a window. Plant seeds one inch deep. When the plants are about 3 inches tall, or have three or more leaves they should be transplanted to about 3x3. When the ground can be well prepared set the plants out 2x2 or 2½ feet. Cultivate often and see that the plants always have plenty of moisture. Early morning and late evening hoeing is the best. A low rich soil grows the best quality and flavor.

Wakefield—Conical head. Very compact with very few outer leaves. Matures early, does not split open readily.

Danish Ball Head—Short stem, round head, solid. An excellent variety for winter keeping. The leaves are fine grained and makes a very good sort for eating.

Large Rock Red—Round, rich, deep red color. The surest, safest and best variety. Used extensively for pickling. Good for all-round use.

Muskmelon—Bull's Serbian

This variety was sent to us from Serbia by Prof. C. P. Bull when he was serving with the American Red Cross in the Balkan States (1918). Its exquisite flavor, rich fine grained flesh at once attracted the attention of the five members of the A. R. C. unit.

A few seeds were saved and brought to Minnesota. Every one pronounced the melons "the best they had ever eaten." St. John & Bull Seed Co., therefore decided to progagate them and save the seed and give their patrons an opportunity to secure these most wonderful melons. Our trial plot of 1-10 acre, raised at Worthington in 1919 was a marked success. In 1920, the same sized plot produced 250 mature melons about the size of a foot ball and 150 smaller sized ones, all mature. These melons can not be bought on the market. The seed is for sale only by St. John & Bull Seed Co.

Other Varieties—Seed will be furnished on request.

Radish

A universal relish for breakfast, dinner, supper, lunches and salads. Our varieties are selected for their earliness and tenderness. Radishes will stand very cool weather and can therefore be planted in the early spring. Sow the seed thickly in the drill and thin as the plants are ready for eating.

Round Scarlet—White tips. Round, rich, scarlet. Tender and very early, small top. Quick to mature and of good size.

Non-Plus Ultra—Deep Red, short, tender, small top, early and maturing in about three weeks for table use. The flesh is white and crisp.

White Icicle—The best of white varieties. Very early, crisp and tender. They retain their usefulness longer than many kinds. The flesh and skin is very clear and pure white. Practically as early as the Non-Plus Ultra.

Rhubarb

Rhubarb is a garden crop everybody should have. It needs the least attention of any garden crop.

We do not carry a large stock of Rhubarb roots, but will be pleased to supply our customers while they last. Our supply is fresh from the ground. Single roots 15c; 4 for 50c.

Rutabagas

The most popular of late growing root crops for winter use. A well prepared dish of rutabagas is a fair rival of potatoes and makes a pleasant change.

The flesh is yellowish. The top slightly purple. All varieties are nearly round in form. Rutabagas must grow rapidly. The seed may be sown late in July and produce a good crop of fair size roots. Rich loam makes the best quality.

Banghlom—This variety is known for its large percentage of dry-matter; lower half yellow. Neck is small. May be used for poultry and live stock as well as for table use.

Parsnip

Sow the seed early, and one inch deep in a well prepared moist seed-bed, seed a half inch apart in drills. Cultivate and hand weed as soon as the seedlings appear. Thin when plants are 4 inches tall to 3 and 4 inches in the row. One ounce will sow two drills 100 feet long. Use about 5 pounds per acre.

Hollow Crown—Quick growing, good sized, not too long, fine flavor, none better.

Gurnsey—A half long variety, shorter than Hollow Crown. Fine grained, good flavor.

Sweet Corn

There are just four classes of sweet corn that meet the demands of the home or of the canning factory. There are nearly 200 so-called varieties of sweet corn, but they are all similar to one or the other of these four standard varieties. None are better. Some folks use field corn to eat off the cob. Why eat field corn when a few rows of sweet corn will furnish all the family can eat, and it is much superior in flavor and is in condition to eat a longer period than field corn. A family can have sweet corn if they wish, from the last of July until frost. How? By planting early in May on the same day, a few rows each of Golden Bantam, Minn. No. 287, Crosby, Country Gentleman and Evergreen. They will mix but very little. They will be in condition for eating in the order given and under average seasonal conditions they will mature for eating about two weeks apart. To be in prime condition the ears must be taken when the grain breaks easily from the pressure of the thumb nail.

Plant as early as the season permits, placing 4 to 5 seeds about 2 inches deep in the hill. When the corn is 4—6 inches high, thin to three stalks. One pound will supply enough seed for 250 hills. 12—15 pounds per acre. 48 pounds is a bushel of shelled sweet corn in Minnesota. Sweet corn makes the very best fodder for dairy cows and young stock. Many farmers save their own sweet corn. We are told by Experimental Station and Sweet Corn Canning factory authorities that better corn can be secured from those who make a specialty of growing the seed than by the individual who grows but a small patch each season and saves what is "left over" for seed.

Golden Bantam—Our sweet corn seed is grown especially for us. We breed for earliness and yield of good ears, a rich golden color, tenderness and sweetness. Plant in hills 3x2½ or 3 feet apart for garden use.

Minn. No. 287 Crosby—The queen of sweet corn varieties. Bred since 1906 by Prof. C. P. Bull at the Minnesota Experiment Station, St. Paul, Minnesota. Pure white, tender, very sweet. The best all-round variety. Selected by the State Canners Association for the fancy(pack) highest priced canned corn. Medium early, ears 12 to 16 rows and 6 to 8 inches long. Plant in hills 3x3 or in drills 3x6 inches apart and plant each 12 inches in the row. Our seed is direct from our breeding plot.

Country Gentlemen—(Zig-Zag Corn) An old, well known variety used extensively for "green corn", drying and canning. It is liked especially for its long kernel, large ear, medium maturity and long season of use. For dry fodder for cattle and sheep this variety is especially good. The stalks are very leafy and good sized. Our seed is direct from our breeding plot, or from fields one or two generations from it.

Evergreen—All evergreen varieties of sweet corn are late if compared with the varieties above mentioned. Our stock matures for eating just after the Country Gentlemen: our Evergreen is the best of all late varieties. It is also used extensively for canning purposes, especially in the central states. By using Evergreen it is possible to have green corn until frost kills the crop.

Squash

Squash needs good fertile soil. They are best planted about apple blossom time. There are just two winter squashes of undisputed value—the Hubbard and the Queen (Individual). Pure seed is a prime requisite for success in squash raising. Plant in hills 10 feet to one rod apart, five seeds per hill, one inch deep. Thin to two or three plants just before they start

Squash—(Continued)

the runners. Manure placed in or around the hill is excellent for the rapid growth of plants. One ounce of seed will plant many hills, 3 or 4 pounds of seed required per acre. For garden use bury a few forks full of manure near or under each hill. This will greatly increase the size and number of squashes per plant. Keep off bugs with "Gardite."

Improved Hubbard—Selected especially for quality and production. Bred in Minnesota and our own growing. One of the oldest sorts and greatest favorite. Rivals sweet potatoes for table use. Rich colored, thick, fine texture, dry and sweet when baked. One plant bears from 3 to 10 squash.

Kitchenette or Baby Hubbard—Bred by the Horticultural Division of the Minnesota Experiment Station. Very prolific and excellent quality. The squashes are all the same size; about 8-9 inches long, 6-7 inches in diameter. Thick meated and good keepers. At the 1921 State Fair a few specimans of 1920 were exhibited as an evidence of the good keeping qualities. There is but a limited amount of seed available as yet. First come first served.

Queen (Individual)—A new sort. Very prolific, grows about 6 inches long and 5 inches in diameter. Smooth, dark green skin, light yellow flesh of fine texture, shaped like a foot ball with deep ridges like a musk melon. Each plant bears many squash. When split in half and baked, then served with butter and salt there are none better.

Turnips

A two crop, summer vegetable. Sow early in the spring and the first of August to secure the tender, sweet delicious flavored turnip. One ounce of seed will sow nearly a 200 foot drill. One to two pounds of seed per acre. Turnips must be grown quickly for best results.

White Milan—Extra early. Nearly round, white throughout, tender and sweet. Grows about half out of the ground. Few leaves, rather erect.

Flat Dutch—A popular sort, grows rapidly. Clear white color, flavor mild. Few small roots.

Beans

There are two general classes of beans, viz: those for baking and those for eating green (string or snap beans). There is sub-class of the string bean known as Horticulture or Pole bean. Plant beans after the ground has become warm, in drill rows one or two seeds every 4 to 6 inches. The rows 2 feet feet apart or in hills—3 plants per hill, every 1x2 feet. Hoe frequently until plants begin to bloom. Do not hoe when the plants are wet with rain or dew. To have an abundance of beans, plant two or three lots about 14 to 20 days apart. In August plant another lot and they will furnish beans for the table until frost. One pound of our beans will plant nearly a 100 foot row. Our stock is especially well selected and of approved sorts for Southwestern Minnesota.

Golden Wax—The most popular of the yellow podded sorts, very prolific, bearing yellowish to white pods 4 to 6 inches long, in clusters. Practically no strings when beans are snapped. Very early and remain long in condition for table use.

Beans—(Continued)

Stringless Green Pod— For those who prefer a green podded bean. This S. G. P. is preferred. There are no strings on the pods. The pods are dark green in color, cylindrical and average about five inches long. They are very tender and remain in season a long time.

Horticultural or Pole Bean—These beans bear nearly the entire season if picked regularly. The vines grow from 4 to 10 feet long. They must have a pole or trellis of some sort if best results are to be had.

Onions

There are many varieties of onions all very much alike in flavor and strength. No garden is complete without its few rows to supply the green onions. We have in stock varieties of the red, white and yellow globe. The globe sorts bring best prices on the market. The novice may expect from 300 to 500 bushels per acre, but experienced growers harvest nearly 1,000 bushels annually. One ounce of our onion seed will sow more than a 100 foot drill and 5 pounds will more than sow an acre if properly sown. Sow very early in the spring in drills about 15 inches apart. Seeds about ¼ inch deep. Thin when plants are 4 inches high.

Sets—Our onion sets are especially good for early spring planting. They are dry, well cured and ready to grow as soon as planted. We have the red, white and yellow.

Red Globe—A medium sized variety. Beautiful red color. Small neck. When ripe the bulb is about 3 inches in diameter, very solid and a good keeper. If smaller bulbs are desired, thin the young plants to only 3 inches in the row.

Yellow Globe—A beautiful yellow onion, similar in form, size, firmness to the Red Globe. Those who prefer the yellow onions claim the yellow globe to be milder flavored than the red.

White Globe—The best of thin, pearly, white-skinned sorts. Very mild in flavor. They grow to large size if not thick enough in the row. The bulbs will attain a size about equal in diameter to the distance to which the plants are thinned in the drill. If for the market the bulbs should be from 2½ to 3 inches in diameter.

Lawn Grasses

And Mixtures for Lawns

We are in a position and thoroughly equipped with experience and 20 years study, to advise with any one about proper varieties and amounts to sow on lawns for all situations. A good lawn depends upon just five things, viz: the right varieties; proper seed bed; sowing at the right time, watering properly in case of drought, viable seeds. We secure the best seed available. We will be glad to give our customers the benefit of our study and experience.

Dandelions and crab grass are the chief weeds infesting lawns. Clean seed is one good method of keeping them out. It never pays to buy cheap or inferior seeds.

Kentucky Blue Grass—The standard weight per bushel for Blue Grass is 14 pounds. Our seed weighs 21 pounds per bushel and is of excellent quality and purity. When sown 25 to 30 pounds is enough for an acre.

Other Grasses—used in lawns are Fescue, Sweet Vernal, Red Top and Rye grass. These have their specical places in mixtures. They may be used or not at the discretion of the one sowing for a lawn.

Lawn Grasses—(Continued)

White Clover—Except in rare cases white clover is used in lawns. Its dark green leaves and white blossoms lend a most pleasant variety to the lawn. It forms a lawn sward while the grasses are getting started and it grows very rapidly after being clipped with the mower. There are but few instances where white clover is not used in establishing lawns and for rebuilding lawns.

Grape Vines

—A New Hardy Variety—

Grapes are a fruit that has long been sought by the inhabitants of this Northwest. A large percent of the grapes used are shipped from the east and west. The wild grape—hardy in all parts of the Northwest states, has proved its worth on the table as a jam, a jelly or a beverage, but the vines are few and far between.

We are glad to announce that we have a small stock of vines of a very hardy grape that will supply the needs of any family with very little trouble and at a small cost. This grape is not on the nursery-stock market nor is the fruit offered to the public through the usual channels. It is almost strictly a family grape. They are perfectly hardy in S. W. Minnesota.

The fruit is about the size of a medium Concord grape. Dark purple color and slightly more tart than the Concord but not as tart as the Beta. The Beta is about midway in tartness between the wild and the Concord grape.

The vines grow rapidly and fruit early. Thus far, they have shown no signs of being injured by our winter seasons. The original vine was brought to Minnesota by an immigrant direct from Hungary.

While they last we will supply these to our customers at 50c for each, or three for $1.00.

Poultry

Rhode Island Reds

We have breeding pens of both single comb and double comb Rhode Island Red Chickens, the most popular and practical breed of chickens for the farmer of for the townsman who wishes to keep a few hens in the back yard.

Our stocks have not been bred particularly for fancy feathers or show. We have catered to the fancier points when they have not interfered with the more practical characters. We have emphasized, as far as possible, size, early maturity, egg production and vitality and have attained our purpose to the extent of having excellent strains of general purpose birds, of excellent dark red coloring.

Our Single Comb Reds have been bred from the best experiment station stock and have had six years of our careful selection. New males are used annually. The 1921 and 1922 males are prize winners and cost $20 each.

Our Rose Comb Reds have been bred for 12 years with a foundation of well known standard stock. The male birds used in matings for our breeding pens have been carefully selected and cost from $10 to $25.00 each. The males used have been changed each year.

Call on us for prices and further information.

Eggs and cockerels for sale.

Flour, Mill Feeds, Salt and Poultry Supplies

We are wholesale distributors of the following well known brands of flour—"Pillsbury's Best," "Gold Medal," "Quaker" and "Prairie Queen." We carry large stocks of these brands in our "Mouse Proof" Flour Warehouses and can assure you of prompt shipment.

We have experimented with Egg and Growing Mash with good success and recommend their use in connection with the grain feeds. Crushed Oyster Shells should be used regularly as we find them to be not only necessary in the grinding of grain feeds but very encouraging in the formation of the egg shell.

Shall be pleased to receive your orders for Poultry Supplies which will have our best attention.

Salt is added to our list of commodities we offer for 1922.

Mill Feeds—Our stock is very complete, consisting of Red Dog, Flour Midds, Country Mill Shorts, Country Mill Bran, Oil Meal, Alfalfa Meal, Tankage, Blatchford's Calf and Pig Meal, Ground Oats, Ground Corn and Oats and Cracked Corn. We make a specialty of mixed cars and will make you very attractive prices on inquiry.

Poultry Supplies—We are experienced Poultry Raisers ourselves and understand the needs of the Poultry Raiser, our stock consisting of all regular sizes of mixed chicken feeds, Egg and Growing Mashes, Ground Alfalfa, Crushed Oyster Shell, Charcoal, Meat Scraps and Bone Meal.

Hort. and Pom. No. 201.

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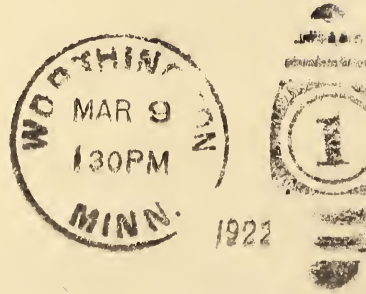
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